## REMARKS

In the Official Action mailed on **12/20/2007**, the Examiner reviewed claims 1-20. Claims 1-3, 5-13, and 15-20 were rejected under 35 U.S.C. § 103(a) based on Bauerle (US Pat. No. 4992942 A hereinafter "Bauerle") in view of Chadwick (US Pat No. 6853952 B hereinafter "Chadwick").

### Rejections under 35 U.S.C. § 103(a)

Examiner rejected independent claim 1 and 11 as being unpatentable over Bauerle in view of Chadwick. Applicant respectfully disagrees. Neither Chadwick nor Baurle, either separately or in concert, discloses a simulation model that includes an **expected outcome** which is the **product** of a probability of an outcome and the utility function.

Applicant agrees with Examiner's assessment that Bauerle fails to explicitly disclose a simulation model that comprises a utility function that encodes profit and loss. As Examiner points out, Chadwick discloses a utility concept (Chadwick, C4:L45-68; C5:L1-15, and C10:L12-55), but "the value and cost computations of the present invention involves the mathematical integration or summation of probabilities of occurrence of difference outcomes (states) for a node in a probabilistic network [Chadwick, C19:L42-45]." Thus the probabilities of the nodes in the probabilistic network (Chadwick, C11:L1-51) disclosed by Chadwick are combined through **summation** and its continuous counterpart, **integration**, rather than multiplication.

Chadwick discloses two equations involving products (Chadwick, C21:L25;L51), but this product is **not** a product of probabilities and utilities. None of the quantities that are multiplied in the said equations are probabilities. In fact, all the values in the said equations are the **values** of nodes (some are, more

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precisely, changes in the values) in the probability network rather than the **probabilities** at those nodes. Thus the equations represent a functional combination of the values of nodes rather than an expected outcome, which combines probabilities with utilities.

In contrast, embodiments of the present invention teach a simulation model that includes an **expected outcome** which is the **product** of a probability of an outcome and the utility function (instant application, P3:L4-6; L11-14, P4:L20-30). This combination an agent to make decisions that maximize the expected outcome (instant application, P3:L16-17).

Nothing within Bauerle and Chadwick, either separately or suggests a a simulation model that includes an **expected outcome** which is the **product** of a probability of an outcome and the utility function.

Accordingly, Applicant has amended independent claims 1 and 11 to clarify that the simulation model includes a simulation model that includes an **expected outcome** which is the **product** of a probability of an outcome and the utility function.

These amendments find support in instant application, P3:L4-6; L11-14, P4:L20-30. No new matter has been added. Hence, Applicant respectfully submits that independent claims 1 and 11 as currently amended are in condition for allowance. Applicant also submits that claims 2-3 and 5-10, which depend upon claim 1, and claims 12-13 and claims 15-20, which depend upon claim 11, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

## CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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